QUICK MEMO (IF ANY) ⇒{

} FROM THE PUBLISHER

An Amateur Production of-
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Newsletters still reach us, some new editors reviving them or simply continuing them, with the usual great store of fixes, factual explanation and philosophy that has made user group projects so effective and interesting. This newsletter, having fulfilled the promise last year of the publisher to continue producing it for a year further, will now continue only on an issue-to-issue basis. That is, this issue may be the last, if the whim to produce yet further issues does not strike from time to time. Its production has not been really cheap and all the costs have been born by the editor, with no user group support. In fact the user group that inspired this newsletter went defunct in February, 1991. But before we finish, a few notes and two really interesting articles for this issue, be it the last or not.

Printer Puzzle-All The Characters Fit To Print- Some programs don't like certain ASCII character codes, some BASIC interpreters like BASICA/GWBASIC or EDLIN for text will fail to load certain types of files containing certain forbidden characters. EDLIN doesn't seem to like ASCII codes over 127, etc. Some printers also do not like certain codes, especially those designed to control the type, width, etc. of character it may print. Feed such a printer a file laced with such characters and the result can be unpredictable and at least a lot of silly garbage printed out. A lot of this is explained, including the use of an escape control character to make the printer take the next character as a control code, to flip into graphics or wide type face or something, in a fairly simple and clear book once sold by Radio Shack, "How To Use Your Radio Shack Printer" by Wm.Barden, Jr. Radio Shack has sold a large enough variety of printers and computers that it gives a fair representation of what you are likely to encounter in dot matrix printer use with any BASIC, running on any computer, or at least it is a start. It is surprisingly easy to get a grasp of how to access printer features through BASIC programs. Too, BASIC programs themselves, if you get the hang of BASIC programming, are a powerful way of converting data files before sending them to the printer, so controlling printer output. Anyone serious about using their computer at home or in the office should get to know more about this stuff-printer control codes, what they do and how to do it via BASIC (programming language) commands, since BASIC comes for all computers.

News & Info: The "Coherent" operating system emulation (UNIX-emulation) mentioned in previous newsletters at US$99 is not new as first thought but some years old, once sold by its creators at about $400! It was reviewed in "Byte" and is much advertised.

Managing A Broken Economy: The Future Of Electronics Design

In the last few weeks it has sunk in. Our economy has ground to a near halt and is presently negotiating a sharp turn. This must temper our past predictions. Now looking into the future of electronics in America and trying to predict new inventions should take account of one thing future predictors have been missing up to now. This is a long term attitude of frugality among computer hardware and even software purchasers, born of recession, of aging and fixed incomes but lasting. Two sorts of things are likely to come of this and influence the computer and electronics market. One is that products that cost little or seem free will be in great demand if they can prolong a lifestyle, pressed by shortfalls in expected nearterm revenues or being nearly broke. In computers that should mean software booms for any product that can extend the life of or mimic for training purposes in some cases a new industrial or computer hardware or software product now out of reach financially to many. Under this heading find emulators, DOS upgrades, operating system emulators and computer/robotics simulators for training, as well as cheap or crippleware software for the home and low-budget offices. The other is the eternal human resonse to adversity, to simply adjust to it and get on with the job (including living without a paying job). Whether under the heading of trying to do new things with a home computer (or even electronic repair) in order to be ready with a broader skill range for a future job or job applicant tests or simply turning to things as an occupation that would not normally be well-paying, it should be commonplace for this generation of 'wanderers' to search new fields for the gems that make life more worthwhile. Arranging his affairs to live with very little expense and keep at bay his creditors, to whom he owed more at age 30 than he could every expect to repay, Thoreau returned to simple pleasures and found his vocation in his personal creativity, leaving a legacy of his reflections in the book, "Walden". The immediate future would, I think, see many following him in seeking diversion in exercising creativity and exploring what the minimalist ideal means in high tech. It may seem a funny prediction to predict a great market in frivolous products and impractical simulators, all computer products being impractical in respect to increasing productivity in industry or being more efficient than competing software. The pull of the annual version change will not be enough anymore.

(Continued bottom page 2).....

Amateur Programming Language of the Future?

Amateur programmers using today's home computers, usually but not always an IBM PC compatibile, are still programming in BASIC. Microsoft has reaffirmed its confidence in BASIC, the language that gave it its start, by issuing a new BASIC interpreter with its MS DOS version 5, twin of QuickBASIC (com.) to replace the older BASICA/GWBASIC interpreter which was about as full-featured with add-on bells and whistles as any BASIC at the time MS DOS was born-1981. Probably more amateurs program in BASIC than in any other language. Among those trying to distribute their programs as shareware, C language and machine language are also popular, but neither seems to be the answer to amateur computer programmers for the future, although machine language is more popular for slower computers to raise the capabilities of the older home computers to something like the speed and features (such as disk-handling, faster graphics) that IBM AT users have come to take for granted. If neither machine language nor C language, where do we go from here if the younger generation really has foresaken BASIC?

Borland's release of TurboPascal at really cheap prices, for CP/M computers and the AppleII with the CP/M board (Z-80 and 80-column boards actually), gave amateur programmers another choice. It had an early vogue and is still well respected, although it is neither cheap simple to learn anymore, with all the encrusted, added-on features. However the inventor (or designer if you wish) of Pascal, Prof. N. Wirth, went on to make another language Modula, which combines the speed of C language with some of the user friendliness (to the programmer as user) of Pascal. In some future version, one more compatible with graphics applications than present versions, Modula may yet become the number one language for amateur programmers and students. So far, although it has been around for almost half-a-dozen years now without exactly sweeping the market clean of competitors, it alone among the traditional languages has the potential to become number one or two. Once more features are added than present versions have, graphics and Windows (Trademark Microsoft) better supported and maybe a low cost, hacker's version released, Modula could be back in the race.

Alternatives should be mentioned as competitors to traditional programming languages and ways of getting programs done. Computer aided or automated program writing programs (CASE tools such as Clarion, sold in a version for amateurs) is one real alternative. MS DOS batch file programming and scripts and programming-like languages within programs such as databases, are another non-traditional approach, and compilers to convert MS DOS batch file routines and dBASE programs into machine code programs just like a BASIC compiler turns a BASIC program into a machine code .EXE or .COM file (in MS DOS or CP/M), have come to market. Programming via dBASE III or MS DOS commands is the most used method.

There are further alternatives, from the known (to a few) like AWK and REXX, to possible developments that still lie in the future like a home computer version of an RPG-type language which is actually a sort of CASE tool, in that input and output are specified, a little processing in the middle (it runs on its own, inherent, built-in loop), and most of the verbose nature of program writing (source code) is replaced by stating how many columns or rows you want the output to be printed on the screen in and what bytes of the data records to take to pr cess or output, much like a more modern automatic program writing tool (CASE, mentioned above). And RPG goes back to the 1960's with IBM mainframes. (This writer tried a program called RUNGENERATOR in BASIC to use a similar built-in loop to calculate tables: mathematical, interest, etc. by the use of only one or two user supplied (or user swapped, in the public domain) formulas. Perhaps the fact that no one has heard of it hints at its fate, even though it has been mentioned in the newsletters some years ago.)

REXX? Let's back up a bit. What is REXX? Well it is a programming language which is said to have the readibility of Pascal, (it is also highly commented, with a comment for each line at minimum being the standard style) and a simplicity of style yet the flexibility of BASIC. It is being taught to students now at our local community college and many others. It may spread across the spectrum of computer classes: high school, college and university, in the next half-dozen years, giving it a real base of amateur programming users. Here is a language that has real potential for the experimenter, building a user base and market for IBM PC compatible compilers or interpreters (it is an interactive programming environment like BASIC) in the near future. This one is a winner in my estimation, along with some future verion of MODULA.

Professional programmers are seeming to use C language more and more and the US Dept. of Defence is keeping Ada going strong and adapting it to improvements in technology. C programmers also talk of the AWK utility, a language more or less, used in UNIX systems, and C++ but neither seem very user friendly.

-Future of Electronics Design-Continued from page 1.....

Now the market is where hobby computer users have lived, when asked, "What do you use your computer for?", of not being able to give a practical answer. So ironically the hobby side of computer use is likely to get some small boost in market size, for repair parts/accessories like power supplies that keep the old computers going and software, if at a cheap enough price and of sufficient novelty, utility receding into insignificance in the buying decision more and more. With so many IBM PC clones out there selling used for about $200 or a little more, it is not hard either to see a phenomenal opportunity for amateur programmers to get practice or in rare cases fame and success from public domain or shareware programming in this market of little financial return for most commercial software operations. It offers numbers and fame and practice rather than much money for amateurs, and a market to get a toe in also for new products from small, companies prepared to sell cheap software. Too, a limited but robust (for surplus or other cheap accessory hardware items), if small hardware/upgrade/repair market is sure to continue as long as enough users resist the temptation to switch models.

In America, we have given up VCR manufacture since it was driving companies broke. In Russia they did not although their clunky, tape-eating recorders did drive them broke although they did not really have enough foreign exchange to buy oriental VCR's. Maybe we just thought that we had enough foreign exchange but in fact were spending the country's savings rather than current foreign earning by cash exports in continuing to buy them. Even if making VCR's in America may never start up again, lack of foreign export money and savings to continue to finance imports of such electronic items may lead to more local manufacture of such items up to now not considered viable. Note two more factors, that digital electronics and software, American strong points, are a possible future main content of a new generation of digital radio, tv and VCR products and looking at labour costs as the difference between welfare and a living wage since those on some form of income support keep needing a minimum anyway, make domestic production more likely.

On the negative side is the failing in technical education of the masses, simple illiteracy and lack of educational willingness in countries based so heavily on immigration. Even an educated migrant may take 15 years to become fluent in English, and rarely be truly literate by early retirement age, if you include good writing. So education is the challenge, changing technology and economics a renewed climate of opportunity for home-grown productivity and the computer users' hobby a possible inspiration for those looking towards the future.